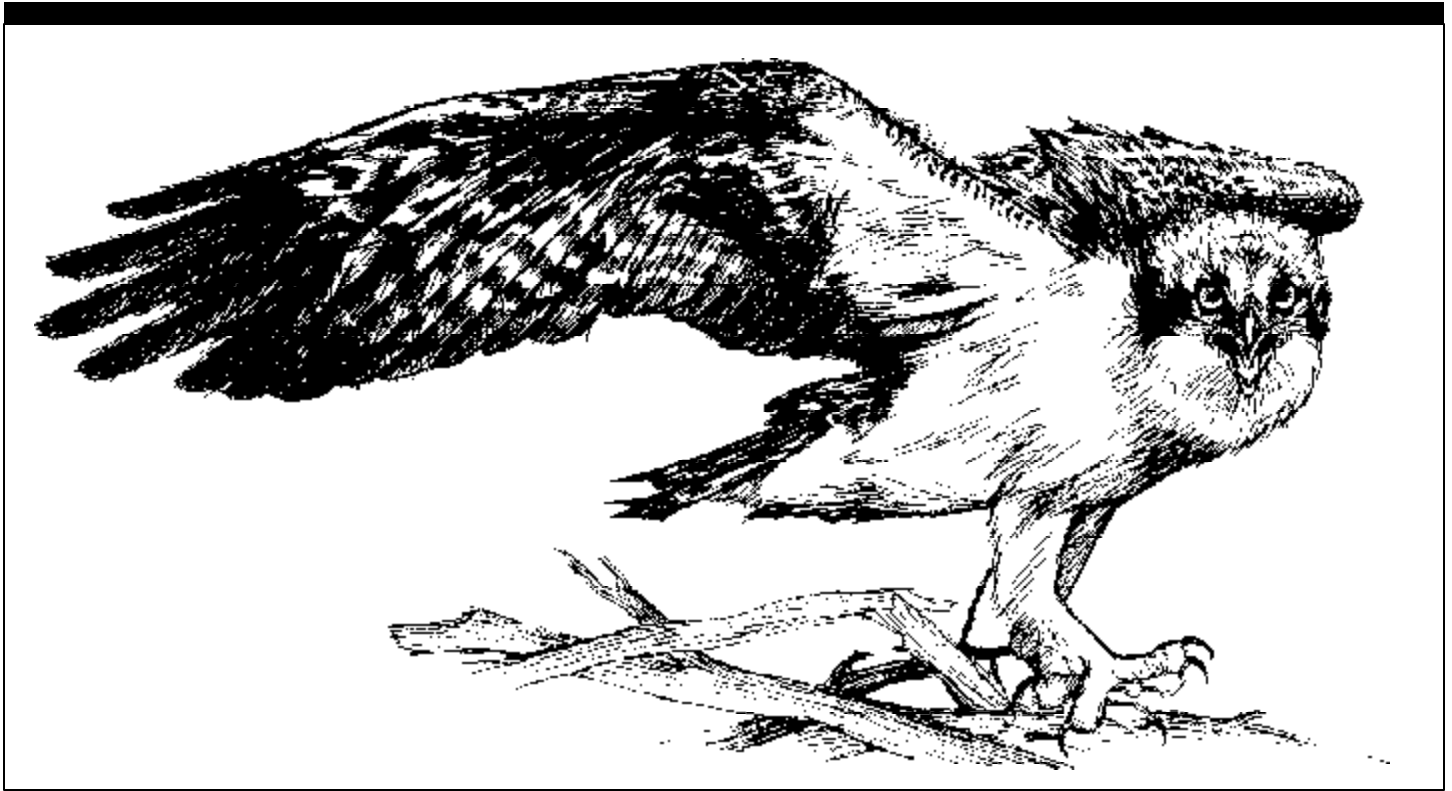


# Osprey

(*Pandion haliaetus*)



The osprey, sometimes known as the "fish hawk," is one of Utah's most specialized summer residents. Most ospreys only pass through Utah during their spring and fall migrations, but a few ospreys nest and remain here during the summer. Well-adapted to catch and feed exclusively on fish, ospreys inhabit areas near lakes, rivers, seas and oceans. In a state as dry as Utah, their distribution is quite limited.

## Habitat

During spring and fall migrations, ospreys may be sighted along many major waterways in the state. Sightings are common in areas near the Great Salt Lake and along the Green and Colorado Rivers. They are also seen along the Wasatch Mountains from Zion National Park to the Idaho border and in the Uinta Mountains.

With the construction of reservoirs in Utah, ospreys have found suitable habitat for both feeding and nesting. Flaming Gorge Reservoir currently hosts Utah's largest concentration of breeding ospreys. Its deep but clear water allows the ospreys to see and catch their prey, and the rocky pinnacles lining the shore provide excellent nesting sites.

Occasionally, breeding pairs have been reported at other sites throughout the state, including Fish Lake, Panguitch Lake, Strawberry Reservoir, some of the mountain lakes near Cedar City and in Kane County.

## Range

Ospreys may be found worldwide on almost every continent. Breeding populations can be found in Europe, Asia, North and Central America, Australia and on many of the Pacific, Atlantic, Mediterranean and Caribbean islands. Some wintering populations migrate to the southern areas of Africa and South America.

Breeding populations in the northern temperate and subarctic climates tend to be migratory. These populations migrate north to Europe, India, the Middle East, southern Asia or Central and South America to winter. The Australian population and populations closer to the equator tend to be full-time residents, breeding and wintering in the same area.

Utah's ospreys migrate south to Mexico, Central America and South America.

## Description

Ospreys are large, dark brown and white raptors (birds of prey). Adults measure 21 to 24 inches long with a wing span from 4 1/2 to 6 feet. They weigh 3 to 4 pounds. Males have an almost pure white chest and belly, while females have mottled brown markings across the chest. Both sexes have a white head with a brown stripe crossing the eye.

In flight, they are most easily distinguished by their sharply angled wings which are more narrow than other large raptors such as hawks and eagles. Viewed from below, ospreys have dark brown or black markings at the "wrist" where the wings bend sharply, dark brown wing tips and dark brown bands on the tail.

Juveniles have markings similar to adults; but the feathers on the backs, wings and tails of juveniles are edged with a pale buff color, and their chests are slightly mottled.

## Prey and Hunting Behavior

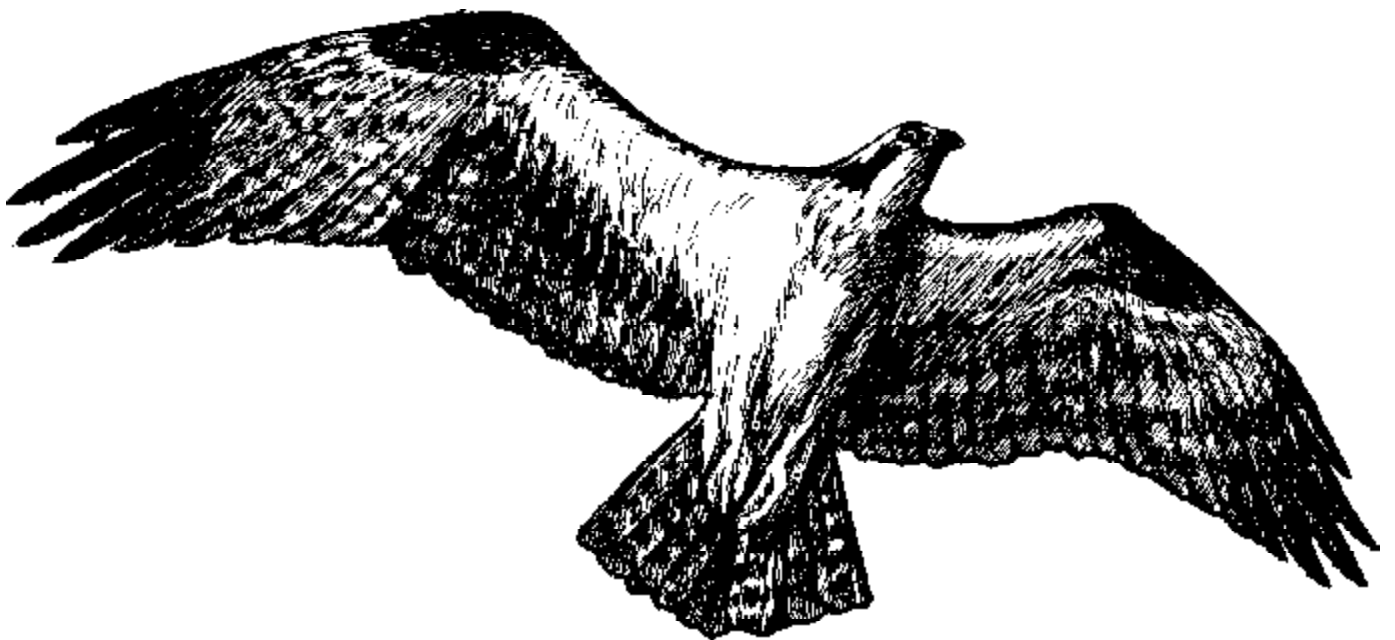
Ospreys will feed on any medium-sized fish found swimming near the surface of the water. They often hunt from a perch in order to conserve energy, but they are more effective hunters while flying. In flight, ospreys may either dive directly on their prey, or they may hover in one spot before diving.

Once they plunge into the water, they can stretch their wings back up out of the water and bend the outer tips to catch enough air to fly out with the fish. Once in the air, ospreys shake off the water left on their feathers.

Ospreys have ridges of short, sharp spines on the bottom of their feet which allow them to grip the slippery body of a fish. Ospreys, like owls, also are able to rotate their outer talon (or "toe") so, instead of having three talons facing forward with one talon facing backward, they have two talons facing forward and two backward. This gives ospreys extra strength, dexterity and stability when catching and holding onto a struggling fish.

Ospreys catch fish by diving feet first. Their long, heavy, strong legs and large feet allow them to reach well under the surface of the water. If a foot touches the prey, the osprey's fast reflexes snap the foot closed, driving the sharp talons into the fish.

After a successful dive, ospreys may rest briefly on the water before flying off. Once in the air, they rotate the fish so its head faces forward. This reduces wind resistance and allows the osprey to control the slippery fish.



## Reproduction

In late March and early April, the ospreys which nest in Utah return from their southern ranges. The older males return first, followed a few days later by the females and younger males. Birds which have nested successfully before usually return to the same nest. If one partner does not return, the other partner will usually mate with another bird. Younger birds select new sites for their nests.

Courtship displays are common for all breeding pairs. Nest site selection and construction are a significant part of courtship. The male selects the nest site and begins constructing the nest, usually before the females arrive. Criteria for good nest sites include security from predators, protection from high winds and proximity to good fishing areas.

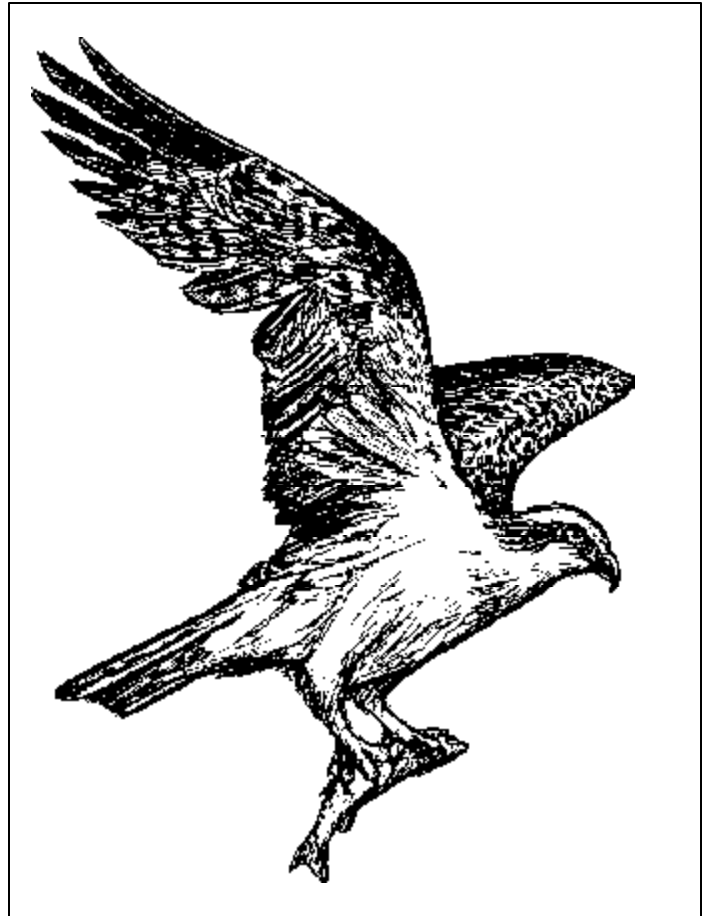
Ospreys which nest in forested areas usually prefer to build their nests in trees, even though some of these nests may be destroyed by strong winds. In many areas, ospreys nest on platforms which biologists have built to increase available nesting sites. At Flaming Gorge, ospreys select rocky pinnacles.

Courtship displays also involve dramatic flying patterns. Sometimes diving and hovering or swooping up and diving sharply down, the male will call to the female while in flight. Then the male carries a fish or nesting materials to present to the female. When a female accepts the male as a mate, she helps to finish building the nest he has selected. The male supplies most of the nesting materials and begins to supply fish for her. By the time the female is ready to lay eggs in late April or early May, she relies almost exclusively on the male for food.

Just before the female lays her eggs, she constructs a nest bowl and lines it with downy feathers, moss, shredded bark and other soft materials. She usually lays between one and three eggs, although occasionally a female will lay four. The eggs are laid one at a time and usually one to three days apart. Both parents incubate the eggs, but the female remains on the eggs for longer periods of time while the male continues to supply food for both of them.

## Young Osprey

The chicks hatch five to six weeks after the eggs are laid. They hatch one to three days apart, so the first chicks to hatch are developing one to three days ahead of the second and third chicks to hatch. The young are born blind, helpless and totally dependent on the adults. They have a fine covering of off-white down which is replaced by a heavier, coarse grey-colored down within a couple of



weeks. By the time the chicks are a month old, they are almost as large as their parents.

Young ospreys are entirely dependent on the adults for food and shelter. The adult males generally feed themselves before delivering fish to the females and offspring. Typically the males will fly to a perch to eat the head and parts of the body. This assures that the males will be in good physical condition to continue hunting and supplying food for the females and chicks. When fishing is poor and there is not enough food for all the chicks to survive, the chicks compete for what fish is brought to the nest. The larger chicks often push the younger, smaller chicks aside.

Approximately nine weeks after hatching, the young ospreys are ready to "fledge" (fly from the nest). During the next month, the young practice flying and learn how to fish. The males continue to deliver food to the nest or directly to the young. By the first of September, most of the females have left the area and have begun to migrate south. The males and older juveniles follow within a couple of weeks, and by October only the youngest birds and birds that have migrated from the north are still found here. Ospreys are rarely seen in Utah during the winter.

## Management

***Ospreys are protected by Utah state laws and rules and the federal Migratory Bird Treaty Act. It is illegal to kill ospreys, disturb nesting ospreys, destroy nests, collect or have in your possession eggs, feathers, or nests of ospreys.***

The osprey population in Utah continues to increase. When the first population surveys were conducted in the mid 1970s, biologists found only four active nests with a total of six young. Today, surveys in the Flaming Gorge and Green River areas indicate that, during each of the last four years, Utah has had over twenty nesting pairs of ospreys. These nesting pairs have produced from twenty to forty young annually.

The Utah Division of Wildlife Resources began banding osprey chicks in 1976, and by 1992, over 146 birds had been banded. Although a few bands have been found near Flaming Gorge, other bands have been returned from Colorado, Wyoming, Colombia, Chili, Ecuador, El Salvador and Honduras.

Nesting success in the Flaming Gorge area depends on several factors. One factor that may cause nests to fail is human disturbance in the nesting areas. Although ospreys may be tolerant of some human activities, they are adversely impacted when people hike or climb too closely to their nests. They are also disturbed by boats or jet skis moving directly toward their nests or stopping directly under their nests. Other factors which may limit nesting success include an increase in predators (especially great horned owls, ravens, golden eagles and falcons), a decline in the available fish populations and poaching, which has been responsible for the loss of some of the nesting birds.

Biologists from the Utah Division of Wildlife Resources will continue monitoring and banding ospreys to determine population structure and migration patterns and to gather additional life history information. For more information about ospreys, contact the Native Wildlife Manager, Northeastern Region, Utah Division of Wildlife Resources, 152 East 100 North, Vernal, UT 84078. (801) 789-3103.



## What You Can Do

- The most accessible location for viewing ospreys is from the Visitor's Center at Flaming Gorge Dam. Nests are visible from the center, and ospreys are frequently seen fishing in the open bay or along the Green River below the dam.
- Always view nests from a distance of 300 to 500 yards so as not to disturb nesting birds. If the adult birds leave the nest, the chicks are very susceptible to dehydration (from the heat of the sun) or to cold (from the effects of stormy weather).
- If you observe ospreys nesting in other parts of Utah, report your finding to the nearest Wildlife Resources office.
- You can contribute to wildlife through the Wildlife Tax Check-off on the Utah State Income Tax forms or by making a contribution to the Watchable Wildlife Program, Utah Division of Wildlife Resources, 1594 West North Temple, Suite 2110, Salt Lake City, UT 84116.

*Wildlife Notebook Series No. 7 written by Ron Stewart, Regional Information and Education Manager, Vernal; edited by Brenda Schussman, Project WILD Assistant Coordinator; reviewed by Steve Cranney, Native Wildlife Manager, Vernal; and illustrated by Jill Rensel. (Images may not be reproduced)*

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